

# City Council Water Committee

## Meeting Agenda

Tuesday, September 20, 2016
<a href="#">COUNCIL CHAMBERS</a>, CITY HALL, 2<sup>ND</sup> FLOOR
5:30-7:00 pm

- Call to Order
- II. Roll Call
- III. Approval of Agenda
- IV. Approval of Minutes from July 8, 2016 and August 19, 2016.
- V. Public Comments on Items Not on the Agenda
- VI. Update Water Resources
  - Water Supply Update
  - Windy Gap Firming Project Update (dates provided by NCWCD)
    - i. 404 Permit 2016
    - ii. Water Rights Decree
- VII. Update CIP Projects
  - Wastewater Treatment Plant Upgrades
    - i. Status: Under construction (MHW)
    - ii. Contract cost: \$31.2 million
    - iii. Estimated completion: July 2017
  - Louisville/Lafayette Drainageway Improvements
    - i. Status: Under construction (Concrete Express- Phase 1, Redpoint-Phase 2)
    - ii. Contract cost: \$9.1 million
    - iii. Estimated completion: September 2016-Phase 2, November 2016-Phase 1
  - Sid Copeland WTP Pump Station
    - Status: Design (Hatch Mott MacDonald)
    - ii. Design Cost: \$237,000
    - iii. Budget: \$2.4 million (includes construction)

VIII. Tap Fee

- IX. Utility Rates & Metrics
- X. Water Resources Engineer Consultant
- XI. Upcoming Projects and Council Action
  - SCWTP Drying Beds Design Fall
  - Pipeline Assessment Fall
  - Plant Security Upgrades October/November
  - SCWTP Pump Station Construction 2017

XII. Agenda Items and Date for Next Meeting

XIII. Adjourn 7:00 pm

Attachments: 07-08-16 Draft Minutes

08-19-16 Draft Minutes

**Project Pictures** 

**PUD Referral Letters** 

927 Main St Response Letter

**Draft Utility Rates** 

**Draft Utility Metrics** 



# City Council Water Committee

## **Draft - Meeting Minutes**

**Friday, July 8, 2016 ADMINSTRATION BUILDING, WATER TREATMENT PLANT** 1955 North Washington Avenue Louisville, CO 80027

- I. **Call to Order** – Jay Keany called the meeting to order at 7:30.
- II. **Roll Call** was taken and the following members were present:

City Council: Jay Keany, Robert Muckle, Jeff Lipton

Absent:

Staff Present: Malcolm Fleming, Kurt Kowar, Cory Peterson, Alan Hill (Yates Law Firm), Paul Flack (RBI)

Public: Mark Zaremba

- III. Approval of Agenda: Agenda approved.
- **Approval of the Minutes**: The meeting minutes from February 19<sup>th</sup> were approval IV. as written.
- ٧. PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA:

None

VI. Committee Operations

The Committee has elected to meet on a monthly basis.

- VII. Update Water Resources
  - Water Supply Update

Supply conditions are consistent with the historical average with Marshall Lake filling approximately 3 weeks ago. Indicators are that the remaining of the year will be typical and supplies are adequate.

Windy Gap Firming Project Update

Page 2 of 4

NCWCD was able to obtain the final 401 permit and work continues towards the 404 permit. NCWCD is exploring financing options for the project as a whole. Louisville's preference is group financing option with one loan/bond for all participants. Upon receipt of proposals, the selection subcommittee did make a recommendation to award the engineering design services to MWH. Current estimates have design taking two years and construction another three to four years.

#### VIII. Update – CIP Projects

Wastewater Treatment Plant Upgrades

i. Status: Under construction (contractor: MHW)

ii. Contract Cost: \$31.2 million.

iii. Estimated completion: July 2017

Mr. Peterson described the recent activity performed by MHW with the major earth backfill wrapping up this month. The process piping has started along with many of the other building foundations. In general, the pace of construction is proceeding satisfactorily.

- Louisville/Lafayette Drainageway Improvements
  - i. Status: Under construction (Concrete Express- Phase 1, Redpoint-Phase 2).
  - ii. Engineer's estimate: \$9 million total cost before UDFCD & City of Lafayette contributions
  - iii. Estimated completion: August 2016-Phase 2, September 2016-Phase 1

Mr. Peterson provided and update on the both phases of the project.

- Louisville/Superior Interconnect
  - i. Status: Project Closeout (Redpoint)

ii. Contract cost: \$547,884

iii. Budget: \$600,000 (1/2 from Superior)

Mr. Peterson stated that the project is in close-out.

Eldorado Intake Reconstruction

i. Status: Project Closeout (Glacier)

ii. Contract cost: \$1.5 million

iii. Budget: \$1.5 million

Page 3 of 4

Mr. Peterson explained that project is also in close-out. There is a warranty issue with the outer screens that is being addressed with the contractor.

• Sid Copeland WTP Contact Chamber

i. Status: Project Closeout (Glacier)

ii. Contract cost: \$406,413

iii. Budget: \$424,000

Mr. Peterson discussed the Contact Chamber project. Overall the project was short in duration and went smoothly.

Sid Copeland WTP Pump Station

i. Status: Design (Hatch Mott MacDonald)

ii. Design Cost: \$237,000

iii. Budget: \$2.4 million (includes construction)

Mr. Peterson stated that this project has started design and looking for construction late in 2016 early 2017.

#### IX. 2017 Water Utility Rates

Mr. Kowar and Mr. Peterson provided an outlined of a new software package that the City is testing for the 2017 Utility Rates. The existing financial model will be used to set the rates for 2017and the new software is evaluated. General guidance to minimize future increases was provided by the Committee.

#### X. Tap Fee

Mr. Peterson provided an update that on the increase of tap fees that is proposed to go into effect on October 1<sup>st</sup>. Mr. Kowar reiterated that recent analysis of tap fees shows a lagging in the fee structure with the most significantly in the water resources component.

Mr. Kowar provided a summary of prior Live Work Tap Fee discussions. Mr. Zaremba provided background to his specific project at 927 Main Street. The Committee requested additional information and that this topic be brought back at the next meeting.

#### XI. Raw Water Master Plan Update

Mr. Peterson presented a review of the draft master plan and the concluding recommendations. The committee provided comments which will be incorporated in the final draft scheduled for submittal in the Fall.

#### XII. Update – Legal

Eldora

Mr. Hill stated that Eldora has filed an application for the transfer of another share of Howard Ditch.

Harper Diligence

Mr. Hill explained that the Harper Diligence case has been filed.

#### XIII. Conservation Program

Mr. Peterson highlighted the increase demand for the water conservation program and discussed the need to add an additional \$7,000 to the program to meet the extra demand.

#### XIV. Boulder County Open Space Pond

Mr. Kowar presented preliminary cost estimates for a regional detention pond for future flood protection.

#### XV. Upcoming Projects and Council Action

Mr. Peterson briefly mentioned four upcoming projects that will be presented to Council in the next 6 months.

#### XVI. Agenda Items and Date for Next Meeting

Mr. Muckle requested an Agenda Item for the Louisville Rod and Gun Club.

The next meeting scheduled on August 5<sup>th</sup> (rescheduled after the meeting to August 19<sup>th</sup>.)

#### XVII. Adjourn

The meeting was adjourned at 10:00 am by Mr. Keany and seconded by Mr. Muckle.



# City Council Water Committee

## **Draft - Meeting Minutes**

Friday, August 19, 2016 **COUNCIL CHAMBERS, CITY HALL, 2ND FLOOR** 

- Call to Order Jay Keany called the meeting to order at 8:38 am. I.
- II. Roll Call was taken and the following members were present:

City Council: Jay Keany, Robert Muckle, Jeff Lipton

Absent:

Staff Present: Malcolm Fleming and Kurt Kowar

Public: Peter Stewart

- III. Approval of Agenda: Agenda approved.
- IV. PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA:

None

- V. Update Water Resources
  - Water Supply Update

Mr. Kowar provided a brief update on the condition of water supply. Marshall Lake is currently above average levels.

Windy Gap Firming Project Update

Mr. Kowar indicated that the Windy Gap Project is progressing and that NCWCD is working through permitting with Army Corp, specifically wetland mitigation issues. NCWCD has finalized the design contract with MWH for a fee of roughly \$10.8 million.

- VI. **Update – CIP Projects** 
  - Wastewater Treatment Plant Upgrades
    - i. Status: Under construction (contractor: MHW)

ii. Contract Cost: \$31.2 million.iii. Estimated completion: July 2017

- Louisville/Lafayette Drainageway Improvements
  - i. Status: Under construction (Concrete Express- Phase 1, Redpoint-Phase 2).
  - ii. Engineer's estimate: \$9 million total cost before UDFCD & City of Lafayette contributions
  - iii. Estimated completion: August 2016-Phase 2, September 2016-Phase 1
- Sid Copeland WTP Pump Station

i. Status: Project scheduled for 2016

ii. Engineer's estimate: \$2.4 million

Mr. Kowar provided a brief overview of all projects. Mr. Keany asked about the scheduling of the sewer replacement work around Louisville Middle School and the timing of it related to the beginning of school. Mr. Keany also indicated that the 88th Street Repaving project took place during the registration week for Monarch. Mr. Kowar indicated that the sewer work was communicated to the residents and the school. The sewer schedule took place later than anticipated due to the staff work load earlier in the year dedicated to larger projects. The 88th paving took place closer to the start of the school year because the paving contractor wanted to finish the larger portions of the repaving work first such as McCaslin and Cherry.

Mr. Lipton asked about the condition of the landscaping at the Howard Berry Water Treatment Facility from the sludge drying bed project. Mr. Kowar indicated there would be follow up regarding the landscaping with the contractor under warranty issues.

#### VII. Tap Fee

Mr. Kowar discussed staff findings related to the 927 Main Street Property and any historical residence usage combined with commercial usage on the property. Mr. Kowar reviewed diagrams of various site and building layouts on the property at different periods in time. Mr. Kowar indicated that based upon what staff reviewed they believed a tap fee was still appropriate.

Mr. Keany asked about tap fees related to total historical gallons per usage on a lot. Mr. Kowar explained the City's historical and present tap fee practices related to charging separate structures for a tap fee and the nuances of interpreting total water usage on a property with multiple structures under that logic.

Mr. Keany asked if the approved site layout was reconfigured as one building if a tap fee would be charged. Mr. Kowar indicated that a tap fee would most likely

not be charged but it would be dependent on the actual application and uses proposed.

Mr. Keany indicated that he believes the applicant would like to build a single family residence on the back of the property versus a multifamily unit as is currently shown for the 927 Main PUD.

Mayor Muckle indicated he is inclined to support grandfathering 927 Main Street for a single family residence usage and not charging a tap fee. This would recognize confusion or unintended expectations created by the new Live/Work Ordinance during the PUD process for the 927 Main property and any historically significant residence behind the commercial building.

Mr. Keany indicated that if push came to shove he would support a single family tap fee waiver at the 927 Main Street property.

Peter Stewart provided Public Comment that the City should consider total usage on a property when considering tap fees. Mr. Kowar discussed the challenges of smaller projects related to total water usage and indicating tap fees require a minimum threshold that considers total water usage and peak water usage additions to the system.

#### VIII. Louisville Rod and Gun Club

Mr. Kowar discussed a follow up item related to the Louisville Rod and Gun Club agreement research and indicated a historical agreement was in place at one time. Mayor Muckle requested a copy of the agreement to review for curiosity of the history of it.

#### IX. Upcoming Projects and Council Action

Mr. Kowar discussed upcoming projects related to the SCWTP Drying Beds design status and planning process, the Louisville Pipeline project condition assessment contractor selection status, and Water/Wastewater Treatment Plant security upgrades.

#### X. Agenda Items and Date for Next Meeting

The committee discussed meeting next on September 20 from 5:30pm to 7:00pm to review the Utilities Operating Budget.

#### XI. Adjourn

The meeting was adjourned at 9:38 am by Mr. Keany and seconded by Mr. Muckle.



Photo 1 – WWTP



Photo 2 – WWTP – Pump Station and Blower Building

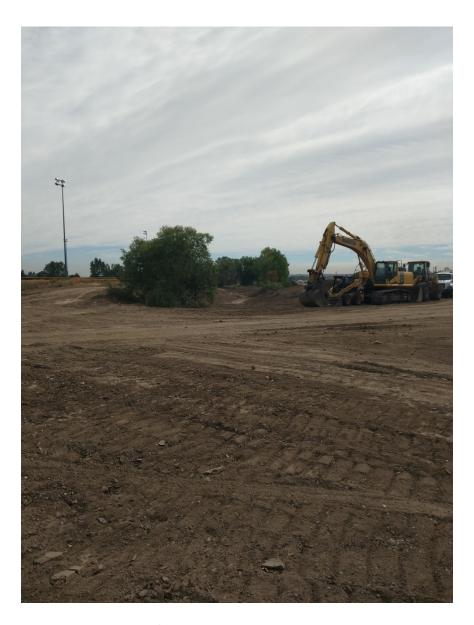


Photo 3 – Drainageway



# **Memorandum** Department of Public Works

To: Sean McCartney

From: Craig Duffin, City Engineer

Date: 7/24/14

927 Main Street PUD/SRU Re:

The Public Works Department completed a review of the subject development application referral received on June 10, 2014 and has the following comments:

#### General

- 1. The site includes an expanded office building and a new duplex. The existing water service and sanitary sewer service to the building shall be evaluated by the applicant to determine if the line sizes are adequate to also serve the proposed remodel/addition. Applicant to provide existing and proposed fixture counts for the one story frame building.
- 2. The duplex building will require separate water and sanitary sewer services to each unit.
- 3. Fire Marshall shall review plan to determine if a fire line is required.
- 4. The City's potable 12" water main that serves the site is located on Main Street and the 6" sanitary sewer main servicing the site is within the westerly ally.
- 5. Applicant shall underground dry utility services to the site.
- 6. Applicant shall obtain a right of way permit from the Public Works Department for site work and utility work. Applicant shall provide a discussion describing all construction equipment/material/labor needed to complete the project. Include in the discussion all utility work on Main Street and in the ally.
- 7. Considering all activities proposed for the site, applicant should video tape the service line to evaluate the line's condition. Public Works recommends applicant replace the old sanitary sewer service (orangeburg/clay) to the main line tap with PVC.
- **8.** A revocable license agreement will be required for sidewalk piping (chase) and entry step that is located within the right of way.

#### **ALTA/ACSM Land Survey**

- 1. Staff noted the encroachment of a flagstone walk onto private property. Applicant shall coordinate removal of the walk with adjacent property owner.
- 2. The plan indicates clean outs, however does not indicate the alignment of the sanitary sewer service. This information shall be included when updating the utility plan for the site.
- 3. Applicant shall clarify the dimension from the northwesterly sanitary sewer manhole to the northerly property line. The dimension is illegible.
- 4. The plan indicates the installation of offset monuments within City right of way. These monuments were installed without City approval. On future property surveys please acquire a right of way permit and install all monuments on private property. The existing offset monuments will not be restored/replaced during City maintenance/replacement activities.

#### **Sheet A 1.0**

- 1. Staff noted the call out for a new sidewalk chase. Sidewalk chases with steel plating are discouraged in the Downtown. Staff will work with the applicant to arrive at an alternative section that will allow drainage flows under city walk (e.g. metal tubing).
- 2. The new driveway proposed for the western garage shall be constructed with a 1-1 ½" lip above the alley edge of pavement.
- 3. In order to acquire a right of way permit, applicant shall provide a site/utility/grading plan that includes Main Street walk replacement, water services/fire line/sewer service lines/walk tubing (chase), asphalt patching.
- 4. Applicant shall provide a correspondence concerning existing and developed site runoff and percent impervious. Information will be needed for drainage piping design.
- 5. Building Department will provide comments regarding fire suppression for the residential units and will determine if sanitary sewer features (e.g. grease trap) are necessary.
- 6. Main Street has a brick band at back of curb. Below the banding there is sleeves for a few utility lines (PSCO, tree irrigation, etc.). This brick band area is also the location for curb stop valve boxes. Applicant to include this information on the site plan for public improvements.



### **Memorandum** | Department of Public Works

TO:

Scott Robinson, Planner

FROM:

Craig M. Duffin, City Engineer

DATE:

September 10, 2014

SUBJECT:

927 Main Street PUD

Public Works reviewed the response to staff comments prepared by DAJ Design dated August 15, 2014 and has the remaining concerns/questions:

- 1. Applicant indicated that a fire suppression system is planned for the commercial building. If a fire line is needed, applicant shall provide a site plan indicating the proposed street work (i.e. curb, gutter, walk replacement, asphalt patching and water line work). Also, consider including the drain piping on the site plan.
- 2. Response indicated sanitary sewer service line shall be replaced to edge of alley. The owner of the property also maintains the sanitary service line from the City main to the property line. Staff again recommends replacement of the service to the City main line.
- 3. Regarding water and sanitary sewer services, the existing lot has 1-3/4" water service and an existing sanitary sewer service for the existing building. City Municipal Code Sec. 13.08.030 indicates that two or more premises may not be supplied from one and the same connection. The project includes an addition to the existing commercial building and new multi family structure. Two structures with three premises. The commercial building can use the existing water and sewer service lines (confirm that the fixture count information at 3.6 is correct for the existing and final building). The multi family structure shall have two separate utility connections for water and sewer because it is a separate structure with two living units. Noted that fire suppression for the multi-family units was not specified and should be evaluated to determine if a 3/4" water service line is adequate.

# Sec. 13.08.030. Separate connection required.

Two or more premises may not be supplied from one and the same connection unless the structures on the premises are served in such a manner on the effective date of the ordinance codified in this chapter. In the addition of a building or structure which adds a complete living unit in the case of a multifamily residence, or which adds a pad or pads to a mobile home court, or which adds rooms or apartments to an apartment house in the event such rooms are served by plumbing fixtures, or any addition not listed in this section which adds more than five points as computed by Table A under section 13.12.030, such addition shall require the payment of an extension charge to be computed according to the method of computing tap fees as outlined in chapter 13.12. This section shall apply to extensions to all existing water services as well as to future services.



# Department of Public Works

September 22, 2016

Mark Zaremba 927 Main Street Louisville, CO. 80027

**RE:** 927 Main Street Tap Fees

Mr. Zaremba:

The Public Works Department has concluded our review of the Building Permit Application for the residential building at 927 Main Street. City records and applicant supplied information indicate that the existing lot has a 1" water service and sanitary sewer service that has served both a commercial and residential components of the subject property.

In consideration of the unique historical water use of this property, the City has determined that the new residential building is a comparable replacement of the prior residential component and would therefore not be subject to a tap fee charge. Please submit the supplemental engineering calculations to document the adequacy of the existing service to support the proposed activities to be included with the provided tap fee calculation form.

Sincerely,

Cory Peterson, P.E. Water Resources Engineer cpeterson@louisvilleco.gov (303) 335-4610



# **Preliminary 2017 Utility Rate Recommendations**

Slide 1: Draft - Water Debt Service Coverage and Proposed Increase

Slide 2: Alternative Draft - Water Debt Service Coverage and Proposed Increase

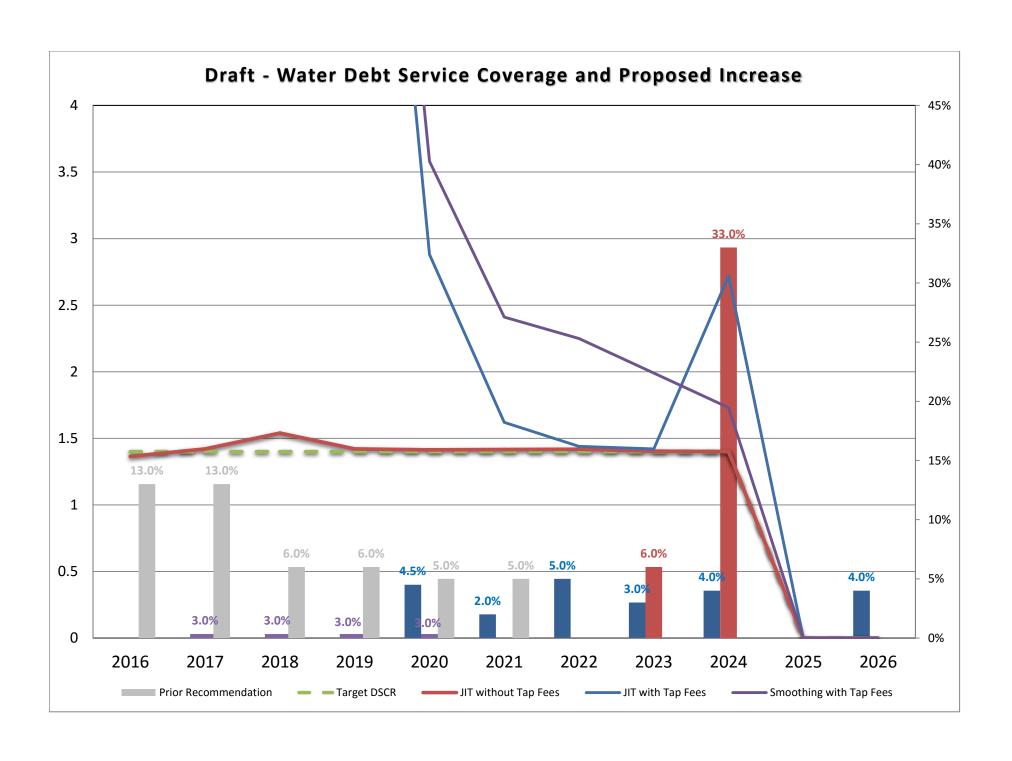
Slide 3: Draft - Wastewater Debt Service Coverage and Proposed Increase

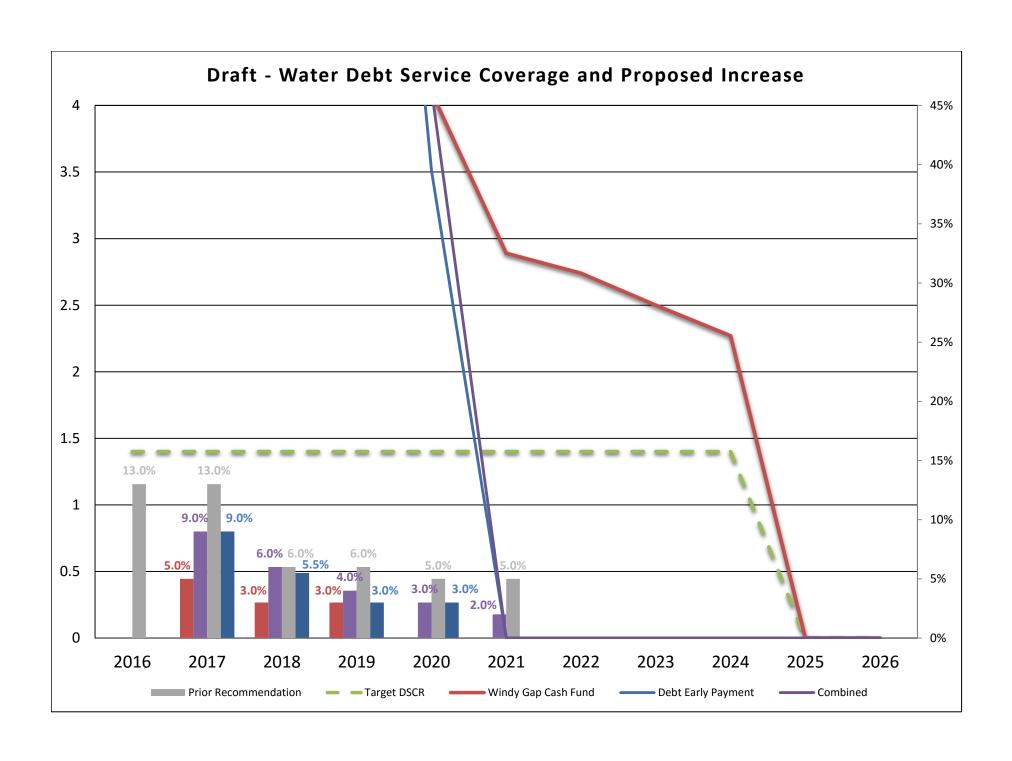
Slide 4: Draft - Stormwater Debt Service Coverage and Proposed Increase

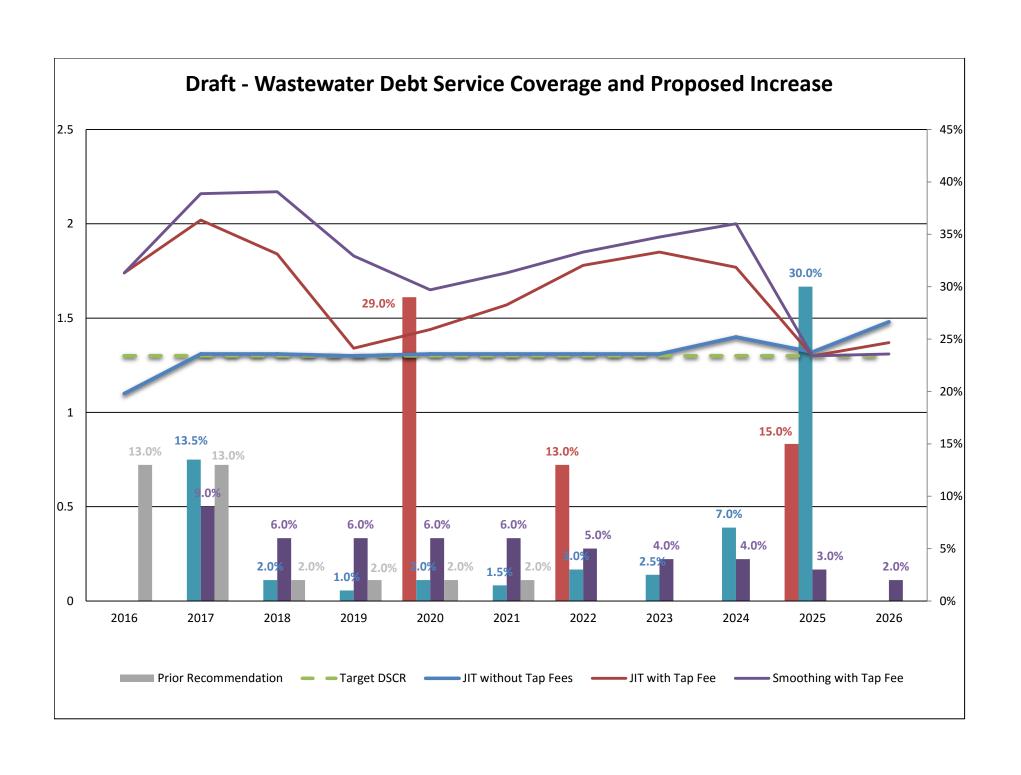
Slide 5: 10 year Water CIP

Slide 6: 10 year Wastewater CIP

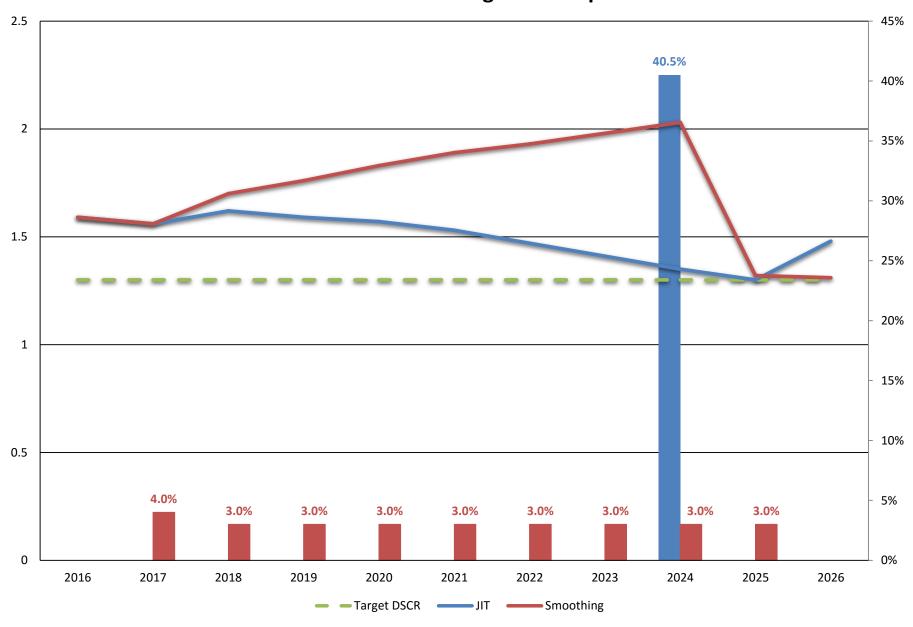
Slide 7: 10 year Stormwater CIP







**Draft - Stormwater Debt Coverage and Proposed Increases** 



To Wastewater Master Control

To Stormwater Master Control
To Combined Summary

Project ICWCD-Windy Gap Firming Project Vater Line Replacement Vater Line Replacement - City Streets	Estimated 2016	Budget											
ICWCD-Windy Gap Firming Project Vater Line Replacement Vater Line Replacement - City Streets	2016		Estimated Budget 2016 2017 2018 2019 2020						Forecast 2021 2022 2023 2024 2025 20				
Vater Line Replacement Vater Line Replacement - City Streets	1	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Vater Line Replacement Vater Line Replacement - City Streets	\$431,597	\$275,000	\$905,000	\$905,000	\$10,000,000								
	220,000	230,000	245,000	255,000	260,000	265,000	270,000	275,000	280,000	285,000	290,0		
	280,000	3,970,000	272,000	53,000	44,000								
Vater Rights Acquisition						500,000	500,000	500,000	500,000	500,000	500,0		
id Copeland WTP Pump Station Improvements loc/Sed Basin Covers	240,000	2,170,000	850,000	610,000							-		
WSP Transmission Capacity			850,000	120,000	1,200,000								
Replace Tube Settlers		575,000		730,000	1,200,000								
McKay Reservoir Pipeline		51.0,000				1,000,000							
ateral Ditch Piping		200,000	200,000	200,000	200,000	,,							
sid Copeland WTP Contact Tank Improvements	428,395												
Marshall Lake Sediment Control							100,000	600,000					
Vater Plants Disinfection Evaluation	500.054	100,000	450,000				05.000			05.000	ļ		
Scada Master Plan Pipeline modification to Fill Marshall Reservoir	530,251		25,000			40,000	25,000	200,000		25,000	<b>—</b>		
BWTP High Service Pump Replacement/Rehab						40,000	250,000	200,000					
Pipeline Condition Assessment	250,000						230,000						
CWTP Drying Bed Rehab	75,000												
BR Ditch Lining			80,000	80,000	80,000	80,000							
Security Upgrades	100,000												
Solar Panel Equipment Lease Buyout	216,410												
ower Recycle Pond Lining and Maintenance SCWTP	50,000 155,000		50,000	80,000				000.00=					
ilter Media Replacement HBWTP Re- pave lower portion of SCWTP	155,000		125.000					200,000			<b></b>		
racilities Painting		200,000	125,000										
Vater Tank interior Structure Maintenance		200,000	100,000										
BWTP Flash Mixer Replacement with VFD's		85,000	100,000										
ower Pond Pump Station and VFD rehab						75,000							
nstrumentation upgrades for both facilities		150,000	50,000						35,000	35,000			
larper Lake Stop Logs	55,000												
ehicle & Equipment Replacement		30,000	30,000						30,000				
SCWTP Building Upgrades	45.000			500,000							<b></b>		
nterprise Resource Planning (25%) PKV Replacement	45,000 40,000										<b></b>		
quipment Purchase for Solids Handling HBWTP - SCWTP	40,000						25,000						
ucity Asset Management Software (25%)	6,250						20,000						
SCWTP Intake structure Evaluation							18,000						
Bulk Water Meter/Backflow Replacement	17,600												
Bleach Booster Station in High Zone						15,000							
BWTP Recycle pump station and VFD Rehab								15,000					
Groundwater PS Controls Upgrade	10,000										<b>——</b>		
loward Diversion Completion/Upkeep Recycle Pump Improvements - SCWTP	10,000 7,000	60,000									<u> </u>		
invironmental Site Assessment - 1600 Empire Road (25%)	3,750										<b></b>		
Itility Rate Update Study	3,730	12,500		12,500		12,500		12,500		12,500			
Caustic Tank Upsize		25,000		12,000		12,000		12,000		12,000			
IBWTP HVAC Upgrades		80,000											
SCWTP Flash mixer impeller replacement		85,000											
ire Hydrant Painting		12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,5		
Centennial / McCaslin High Zone Water Loop		53,700	40.055										
System Water Loss Audit			40,000 50.000										
Vatershed Protection Plan VQ real time system monitoring			50,000					360,000					
Vater System Tie-In with Superior	200,000							300,000					
Idorado Intake - Flood Reconstruction	1,200,000												
ouisville Pipeline Flow Control		250,000											
Meter replacement							1,000,000						

City of Louisville 2017 Financial Plan Update Wastewater CIP Forecast

To Waster Master Control
To Wastewater Master Control
To Stormwater Master Control

To Combined Summary

City of Louisville - Wastewater Utility Forecast CIP without Inflation												
	Estimated Budget Forecast											
Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
			•	•								
Wastewater Plant Upgrade	18,966,880	6,661,195										
Sewer Utility Line Replacement	315,000	330,000	350,000	365,000	370,000	380,000	390,000	400,000	410,000	420,000	430,000	
Sewer Utility Line Replacement - City Streets		1,770,000	430,000									
City Services Facility (25%)												
Reuse System Equipment Replacement	95,000		30,600		60,500			302,000				
Sewer Main Video	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	
HYCOR Drum Thickener					200,000							
Vehicle & Equipment Replacement		64,000			25,000		40,000			80,000		
Solar Power Equipment Lease Buyout	106,590											
Facilities Maintenance-Roof repairs etc.							40,000					
FILTER FEED PUMPS (2)								45,000				
Golf Course Re-Use Automation of Valve Actuator/SCADA	77,000											
Enterprise Resource Planning System (11.5%)	45,000											
Equipment Service-Drum Thickener, Centrifuge, Blowers				30,000	25,000		25,000		35,000			
SCADA Upgrades								85,000				
WWTP Building Upgrade						15,000	500,000					
Pond Liner Replacement (50%)												
Local Limits Consulting and development		30,000										
Polymer Liquid Drum thick				25,000								
Roof Structure												
Louisville/Superior Integration Study												
Lucity Asset Management Software (25%)	6,250											
Lab Equipment	6,500	6,500										
WWTP Facilities Plan & Aeration Basin Repair												
Laboratory Grade Water DI Unit		7,000					8,000					
Fuel Tank Decommissioning (25%)												
WWTP Security Upgrades	35,000											
CTC Lift Station Controls	20,000											
Bio-Solids Study			30.000									
Reuse Masterplan Study	55,000		00,000									
Utility Rate Update Study		12,500		12,500		12,500		12,500		12.500		
Reuse Water Line Expansion (50%)								,				
Total Growth Related	0	0	0	0	0	0	0	0	0	0	(	
Total Non-Growth Related	19,753,220	8,906,195	865,600	457,500	705,500	432,500	1,028,000	869,500	470,000	537,500	455,000	
Jpdated Total CIP Before Inflation Adjustment	\$19,753,220	\$8,906,195	\$865,600	\$457,500	\$705,500	\$432,500	\$1,028,000	\$869,500	\$470,000	\$537,500	\$455,000	

City of Louisville 2017 Financial Plan Update Stormwater CIP Forecast

To Water Master Control

To Wastewater Master Control

To Stormwater Master Control

To Combined Summary

City of Louisville - Stormwater Utility Forecast CIP without inflation												
	Percent	Percent Estimated Budget Forecast										
Project	Growth-Related	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
City-Wide Storm Sewer Outfall Improvements		\$2,500,000										
Drainageway 7-1												1,500,000
Storm Sewer Detention Pond Maintenance		110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000
BNSF RR Underpass/N Drainage (66%)		158,400	99,000	198,000	198,000							
Core Area Utility (80%)		225,000										
CCS Drainage			250,000									
Cottonwood Park Floodplain							250,000					
Lee Street Drainage			100,000									
South Street Underpass (5%)		83,380										
96th and Dillon (DWY G)											100,000	
Goodhue Ditch Diversion at Coal Creek				16,000	80,000							
Vehicle and Equipment Replacement			44,000									
Lucity Asset Management Software (25%)		6,250										
, ,												
Updated Total CIP Before Inflation Adjustment		\$3,083,030	\$603,000	\$324,000	\$388,000	\$110,000	\$360,000	\$110,000	\$110,000	\$110,000	\$210,000	\$1,610,000

#### **Utilities Program Key Indicators** Water Sub-Program

#### Goals

Ensure safe, reliable, great tasting water; properly treated wastewater; effective stormwater control; successfully managed solid waste; and competitive prices for all services.

#### **Objectives**

Consistently provide safe and great tasting water, routinely testing quality for compliance with State and Federal Standards. Operate and maintain facilities efficiently, allowing for reasonable and equitable rates while maintaining optimal quality.

INDICATOR	UNIT	2015 ACTUAL	2016 ESTIMATED	2017 PROJECTED
Context Data and General Information				
Population	Residents	20,047	20,100	20,100
\$ Per Resident	Exp./ Resident	\$128	\$126	\$130
Workload				
Surveys to Detect Water Main Leaks	Feet	135,104	272,789	216,024
Water Main Flushing	Feet	488,813	407,893	488,813
Water Main Valves Exercised	Units	(Ea. Zone)	L-1723	M-1335
Potable Water Measured and Billed	MG	1,003	1,000	1,005
Hydrants Maintained	Units	211	501	445
Potable Water Produced Annually (MG)	HBWTP <sup>2</sup>	793	681	883
. , ,	SCWTP <sup>2</sup>	317	518	407
Efficiency				
Energy per MGD	E/MGD	1,195	1,161	1,200
Potable Water Unaccounted	% <sup>3</sup>	9%	9%	9%
Cost per MGD Billed	\$/MGD	\$1,263	\$1,087	\$1,200
Effectiveness				
"Quality of Louisville Water" Rating <sup>1</sup>	% Excellent or Good	89% (2012)	91%	NA
Compliance with State & Federal Standards	Full Compliance	Yes	Yes	Yes

<sup>1</sup> Based on the 2016 Citizen Survey results.

2 HBWTP is the Howard Berry Water Treatment Plant, SCWTP is the Sid Copeland Water Treatment Plant

<sup>&</sup>lt;sup>3</sup> Doesn't include non-revenue water <u>such as Hydrant Flushing, Backwash, etc.</u> Just Metered vs Produced.

#### **Utilities Program Key Indicators Wastewater Sub-Program**

#### Goals

Ensure safe, reliable, great tasting water; properly treated wastewater; effective stormwater control; successfully managed solid waste; and competitive prices for all services.

#### **Objectives**

Protect public health and the environment by collecting and treating wastewater in compliance with Federal, State, and Local laws.

INDICATOR	UNIT	2015 ACTUAL	2016 ESTIMATED	2017 PROJECTED
Context Data and General Information				
Population	Residents	20,047	20,100	20,100
\$ Per Resident	Exp./ Resident	\$53	\$52	\$52
Workload				
Sewer Line Jetting and Cleaning	Linear Feet	178,027	275,000	200,000
Industrial Pretreatment Program	# of SIUs	6	5	7
Efficiency				
Average Wastewater Treated (Daily)	MGD	1.96	1.92	1.94
Treatment Cost per 1,000 Gallons <sup>1</sup>	\$/1,000 Gallons	\$1	\$1	\$1
Energy Usage per MGD	Energy(kWh)/MG	4,156	4,292	4,442
Available Reclaimed Wastewater Used <sup>2</sup>	%	68%	75%	84%
Available Reclaimed Wastewater Osed	MG	44	49	55
Effectiveness				
CDPHE Compliance	Full Compliance	Yes	Yes	Yes
USEPA Compliance	Full Compliance	Yes	Yes	Yes
Odor Complaints <sup>3</sup>	Complaints	New Metric	August	None
"Waste Water (Sewage System)" Rating <sup>4</sup>	% Excellent of Good	90% (2012)	92%	NA

The acceptable range for treatment operating cost per thousand gallon is between \$0.95 and \$3.25

The City's water rights limit the total amount of wastewater that may be used to 65 MG.

<sup>3</sup> The acceptable range for odor complaints is between 0 and 10 4 Based on the 2016 Citizen Survey results.

#### Utilities Program Key Indicators Stormwater Sub-Program

#### Goals

Ensure safe, reliable, great tasting water; properly treated wastewater; effective stormwater control; successfully managed solid waste; and competitive prices for all services.

#### **Objectives**

Maintain our storm water system to protect Coal Creek specifically and the natural and built environment generally. Proactively reduce pollutants in the water by educating the public, sweeping the streets, maintaining an efficient & effective storm water system and leveraging intergovernmental partnerships.

INDICATOR	UNIT	2015 ACTUAL	2016 ESTIMATED	2017 PROJECTED
Context Data and General Information				
Population	Residents	20,047	20,100	20,100
\$ Per Resident	Exp./ Resident	\$5	\$4	\$5.00
Workload				
Inlets Cleaned	Count	24	152	178
Quality Monitoring Tests	Tests	15	16	24
Street Sweeping	Lane Miles	3,316	2,400	3,000
Public Information and Education Items	Events	9	8	9
Efficiency				
Cost per Mile of Collection System	\$/Mile	\$4,000	\$4,813	\$8,685
Maintenance and Repairs per FTE	MR/FTE	36	228	267
Effectiveness				
CDPHE Compliance	Full Compliance	Yes	Yes	Yes
Number Illicit Discharges	#	1	3	5
"Storm Drainage (Flooding Management)" Rating <sup>1</sup>	% Excellent or Good	88% (2012)	89%	NA
Number of Times Each Street is Swept	Times	1.5	2	2
1 Based on the 2016 Citizen Survey results	•			

Based on the 2016 Citizen Survey results.